

A PERFECT STORM OF OPPORTUNITIES TO ESTABLISH AND FUND

A PROGRAM TO REDUCE MISERY AND PROTECT WATER RESOURCES

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A confluence of six recent, major events has created a flood of opportunity for those of us concerned about how we, as a nation, can best deal with the reality of the hazards created by human occupancy of those areas that are particularly afflicted by the normal processes of Nature that we, all too often wrongfully, call “natural hazards.” As the father of modern floodplain management, Gilbert White, correctly pointed out, floods are not disasters until humans occupy hazardous areas without due regard for what Nature will do in the area.

The six events that have brought this matter to prominence in the public consciousness are

- The growing awareness that even in the water-rich United States many areas, including some of our most rapidly expanding regions, are facing a critical shortage of both potable water and for that matter, any water at all;
- The recent human fatalities and over \$1 billion in damage due to the current and ongoing (as of November 28, 2007) wildfires in Southern California;
- The failure of the levees in New Orleans during Hurricane Katrina, and the \$278 billion in litigation that followed that disaster;
- The huge financial settlement resulting from the catastrophic failure of levees in California, known as the *Paterno* case;
- The recent U.S. Supreme Court decision in the wetland regulation case known as *Rapanos-Carabell*; and
- The nationwide effort being undertaken by the Federal Emergency Management Agency to update Flood Insurance Rate Maps, known as Map Modernization.

The concept of No Adverse Impact helps us develop linkage between hazard managers, and other folks: the development community, community development officials, water quality managers, stormwater managers, wetland managers, wildfire managers, earthquake managers, the public, and many others, which has the potential to serve as the foundation of a transformation of public policy towards land use and public protection.

No Adverse Impact

NAI or No Adverse Impact is defined by the Association of State Floodplain Managers (ASFPM) as “...an approach that ensures the action of any property owner, public or private, does not adversely impact the property and rights of others.” This principle makes a community look at what really needs to be done to prevent damage to people, property, and the environment.

This concept requires looking beyond business as usual, including rote reliance on local, federal, and state minimum standards.

NAI is a *principle* that leads to a *process* of decision-making that is legally acceptable, nonadversarial (neither pro- nor anti-development), understandable, and palatable to the community as a whole.

The National Flood Insurance Program (NFIP) and the NFIP's Community Rating System (CRS) can serve as the foundation and conceptual basis of No Adverse Impact floodplain management.

The NAI principle kicks the NFIP up a notch or two!

The concept of No Adverse Impact is supported by numerous recent court cases, as well as by truly ancient legal and moral concepts. NAI has profoundly deep legal roots, and if properly applied should resist legal challenge as much as anything can in this uncertain world.

The NAI process clearly establishes that the "victim" in land development is not the developer, but rather the other members of the community who could be adversely affected by an ill-conceived proposed development. The developer is liberated to understand what the community's concerns are so they can plan and engineer their way to a successful, beneficial development.

NAI management

- Is consistent with no net loss of ecological functions,
- Provides a pragmatic standard for regulation,
- Complements good wetland and stormwater regulation, and
- Makes sense on a local and regional basis.

NAI is, however, not some new concept. Rather, NAI is a very old idea—so old that it is in fact a maxim of ancient Roman law expressed in Latin as *Sic utere tuo ut alienum non laedas*. Or, in English, Use your own property so that you do not injure another's property.

Mohandas K. Gandhi, the father of Indian independence and one of the great moralists of the twentieth century called "*sic utere tuo ut alienum non laedas*" "a grand doctrine of life" and the basis of loving relationships among neighbors. Other commentators have indicated that this NAI type philosophy is central to the tenets of virtually all major religious beliefs.

The Taking Non-Issue in Hazard Regulation

No Adverse Impact is consistent with ancient common law and is also sound moral doctrine. It is also fully in accord with modern law. The Fifth Amendment to the U.S. Constitution says, "...nor shall private property be taken for public use without just compensation." There have been some famous court cases that clarified this, notably *Pennsylvania Coal Company vs. Mahon*, which stated that a government regulation can restrict the owner's freedom to use her property to such an extent that it can constitute a "taking" of that property without compensation.

This is often referred to as the "taking issue." One reason often cited by local officials for not fully considering hazard regulations as they issue building permits is the fear that a limitation of what a property owner wishes to do might be considered to be an unconstitutional "taking" of private property. Such concerns are not well founded. Over the last few decades, there has been an increase in taking issue cases and related controversies involving development. But in fact, a careful case-by-case review of these "taking" cases discloses a common thread: the courts have modified common law to require an increased standard of care as the state of the art of hazard management has improved.

State and local governments are far more likely to be successfully sued for permitting development that causes problems, such as poorly engineered and designed roads,

stormwater systems, and bridges, than they are for prohibiting or requiring safe and proper design of such development. Almost no hazard-based regulations have been held to be a taking—almost none!

On the other hand, there have been many, many cases in which communities and landowners were held liable for harming others.

Takings Law Clarified. The United States Supreme Court recently issued a ruling in the case of *Lingle v. Chevron*, 125 S.Ct. 2074 (2005). The Court summed up its reasoning by stating that the tests articulated in *Lingle* “...all aim to identify regulatory actions that are functionally equivalent to a direct appropriation of or ouster from private property....”

This clear statement by the nation’s highest court tremendously supports both the principles of the NFIP and NAI floodplain and stormwater management. Both the NFIP and NAI seek to require the safe and proper development of land subject to a hazard. Neither the NFIP nor NAI floodplain and stormwater management require or support government regulations that oust people from their property.

The NFIP does, however make a good start at encouraging the sort of regulation that will be needed at the local level to safely regulate all forms of land use in hazardous areas. As one of our nation’s most prominent water resource engineers pointed out in a recent article, “There is little leverage at the national level beyond the flood insurance program to steer development away from areas vulnerable to flooding.” (See, Lewis E. Link, “Katrina Policy Lessons Learned: Coping With Change is A Risky Business,” in the *National Wetlands Newsletter* 29(5) August- September 2007.) The bottom line is that the taking issue is really a non-issue for fair and equally applied hazard management regulations. However, whether we can successfully incentivize changes in attitude at the local level—where most development decisions to regulate hazardous areas are made—is quite another question.

The Six Recent Opportunities

(1) Growing Awareness of the Increased Scarcity of Fresh Water. As the population in the United States increases at an unprecedented pace, we are seeing a growing scarcity of water due to increased demand, pollution, climate change, and even sea level rise endangering fresh surface and groundwater. This phenomenon was well documented in the lead article in the October 21, 2007, *New York Times Sunday Magazine*, “The Future is Drying Up,” by Jon Gertner. We are not making a sufficient effort to develop and protect our water resources both as we develop land for housing, businesses, agriculture, and industry, and as we design the nation’s water infrastructure. Proper engineering and planning can do much to help alleviate a potential crisis.

(2) The California Wildfires. Much as they did after the devastation from Hurricane Katrina, many of our commentators on the recent devastating fires in California have opined something like “Why do people occupy hazardous areas? They should not be allowed to rebuild!” Unless otherwise constrained, people will live where they want due to location, location, and location. Most often proper land use and building codes can work to make occupancy of all but the most hazardous areas possible. Sometimes, there are in fact areas that are too dangerous or environmentally sensitive for some types of occupancy and use. The folks who make the extremely difficult decisions as to what will be required to regulate the development of hazardous areas are local officials who right now have little incentive to say no to development, which is needed to pay local taxes. The challenge we face is how to incentivize all connected with development in such a

manner as to encourage sound engineering and proper planning in areas that can be developed; and constrict improper development.

(3) The Katrina Disaster. So much has been written about Katrina from the perspective of a hazards manager that we need say little about it. The United States has an official policy, set forth in legislation, that this nation is committed to encouraging the provision of housing for all Americans which meets four criteria: decent, safe, sanitary, and affordable. Katrina serves as a reminder to all involved in community development that housing that does not take natural hazards into account cannot be decent, cannot be safe, is highly unsanitary, and is not affordable by the disaster victim, by her community, by his municipality, by her state, or by the nation.

The ongoing battle in the courts swirling around over \$278 billion in claims for damages after the Katrina levee breaches may also help us focus on prevention and safe planning and engineering. (See E. A. Thomas, "Recovery Following Hurricane Katrina: Will Litigation and Uncertainty Today Make for an Improved Tomorrow?" in the *National Wetlands Newsletter*, August-September 2007, found at <http://www.floods.org>). Hazard managers can supply the information about natural hazards at a particular site which can serve as a "no adverse impact," sustainable foundation for a decent, safe, sanitary, and affordable community.

(4) The Paterno Case. The civil litigation against the State of California known as the *Paterno* case involves assigning damages for a catastrophic failure of levees in California. The state has been required to pay nearly one half billion dollars to recompense a large number of property owners for the failure of levees. The result in this case is illustrative of modern legal trends towards a concept based on an NAI-type legal philosophy with respect to payment for damage caused by the failure of dams and levees. The State of California is now has embarked on a massive program to prevent levee failure; and the California voters will have an opportunity this fall to approve an even larger and more ambitious program of repair.

The steps taken by that state already to seriously address concerns about its deteriorating levees are illustrative of the positive benefits of NAI, even when it must be required by a court.

(5) Map Modernization. The Federal Emergency Management Agency (FEMA) has embarked on a nationwide effort to digitize and update all the Flood Insurance Rate Maps in the country. As part of that effort some states and municipalities are developing studies that use future-conditions hydrology that documents that, in certain situations, if floodplains are fully developed, future flood heights may increase by as much as six feet. Modern hydrology and hydraulic modeling will be able to be used by municipalities and plaintiffs to encourage adherence to NAI. Many other communities are now, some grudgingly, recognizing the existence of flood hazards that had been ignored in development decision making.

(6) The Rapanos-Carabell Case. Recently the U.S. Supreme Court issued a strange and confusing opinion that can be understood as a call for coordination among all those concerned with water—stormwater, floodplain, and wetland managers alike. The case, which is known as *Rapanos-Carabell*, involves the geographic extent of the area that the federal government may regulate as "wetlands" under the Clean Water Act. The plaintiffs claimed that the land areas in question were not properly subject to the jurisdiction of the Corps under our federal system of government. The Court determined that in determining

whether the areas in question were subject to federal jurisdiction, courts must determine whether there was a demonstrable connection between the area and “waters of the United States.”

When one is seeking to quantify the impact of filling a wetland, floodplain/stormwater hydrology and hydraulics are invaluable analytical tools. Courts have historically been extremely sensitive to protecting public safety by supporting fair and proper regulation of development so that it does not cause harm (including flooding) to others.

A Comprehensive Program for Water

These six events present an enormous opportunity for everyone who has anything to do with decisions as to whether, and how to safely design and engineer structures that occupy hazardous areas. The principles of public safety and safe land use are essentially the same for deciding how to plan and engineer for safe occupancy of a hazardous location, whether the location’s hazard is caused by flood, wildfire, levee failure, hurricane, earthquake, tornado, stormwater, or drought.

To best serve everyone in our nation, developers, regulators and the public need to work in partnership by developing win-win relationships with each other to meet the challenges posed by Mother Nature.

One place to start such transformation would be with water, which is essential for our economy, and our existence itself. Let us begin to address the problem of development in hazardous areas by again considering water resources, not in our usual stovepipes, referred to by one wag as our “cylinders of excellence,” and instead have floodplain, drought, stormwater, wetland, water quality, and water quantity regulators and experts begin to work harmoniously, and with the development community and the public to fashion strategies that will begin to meet the need for the safe delivery of potable water to our rapidly growing population, while protecting the public from un-mitigated adverse consequences of development that is ill planned and engineered .

The first portion of the model for the accomplishment of this goal would be to adapt some of the concepts of several successful programs in such a way as to focus on unifying support for water resources. At one time our nation suffered from urban fires far more than any other hazard. As a result of a concerted push to reward good fire management and dis-incentivize less effective fire management behavior, we have progressed to the point that the average homeowner who occupies a home in the so called 100-year floodplain is far more likely to suffer flood damage than fire damage. This effort was spearheaded by America’s insurance industry through the establishment of organizations such as the Underwriters Laboratory, and the Institute for Business and Home Safety as well as formulating a system whereby each community was rated on its individual ability to prevent and fight fires. Similar efforts are underway to rate the ability of building codes in each individual community to protect buildings from loss due to high winds.

A similar rating program could be developed for rating communities’ unified water resource efforts. The NFIP established such a rating program for local efforts that exceed the minimum standards of the NFIP to protect against floods. An expansion of this program to cover unified water resources protection—flood, quality, stormwater, wetlands, water availability, groundwater and more—should be considered.

Insurance companies as well as the federal government could use this rating system to reward communities that were taking steps to protect water resources, through reduced

insurance premiums, as well as more favorable treatment on cost sharing for disaster assistance, as well as water resources related funding from the Environmental Protection Agency, the U.S. Department of Agriculture, and all other agencies.

The second prong of this effort would be the establishment of a fund to assist communities in paying for their efforts to protect water as a valuable resource.

One way to find the money for such a fund would be to further the concepts of the Coastal Barrier Resources Act (CBRA). CBRA is an effort to relieve development pressures on an especially hazardous and environmentally sensitive location: undeveloped coastal barrier beaches. This was accomplished by forbidding federal expenditures for anything that supported such development. The ban on federal expenditures means no funding for roads, bridges, water and sewer plants, disaster assistance, or flood insurance. When CBRA was being considered, a ban on federal support for development through the tax code was considered to no avail.

Therefore, IRS casualty losses, as well as deductions for interest on loans for development and purchase of these hazardous properties remain in effect.

CBRA is generally considered to have been effective in areas where local governments zoned the area in question so as to constrict development. CBRA has been less effective in areas where there are no effective land use restrictions. Suppose we developed a system whereby federal tax incentives were removed or lessened on a sliding scale from any development that did not meet safe land use, engineering, and planning standards? Any funds that would otherwise accrue to the U.S. Treasury could be diverted into a revolving fund to pay for future improvements in water resources, with priority in funding to communities that are protecting their water resources.

Additional funding could come from a variety of changes in the formulas for providing federal water resources funding.

Opportunities to work together are there. The law favors protecting the public from harm. Techniques for protecting the public and also developing most parcels of land to the highest and best use also exist. Partnerships, incentives for proper conduct, and finding the will to transform are next steps.

This article is a pro bono presentation on behalf of the Association of State Floodplain Managers. It reflects the personal views of the author, and is not legal advice.

This article was inspired by a conversation with Congressman Earl Blumenauer of Oregon; and is dedicated with thanks to him and his efforts to effectively and efficiently protect our nation's water resources.

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